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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,022	09/23/2005	Hyun-Kyo Kim	2743-0174PUS1	3847

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BIRCH STEWART KOLASCH & BIRCH  
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FALLS CHURCH, VA 22040-0747

EXAMINER
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SCHATZ, CHRISTOPHER T

ART UNIT	PAPER NUMBER
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1791

NOTIFICATION DATE	DELIVERY MODE
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11/13/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,022	<b>Applicant(s)</b> KIM, HYUN-KYO	
	<b>Examiner</b> CHRISTOPHER SCHATZ	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,8 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,8 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **FINAL REJECTION**

### ***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 2, 8 and 9 are rejected under 35 U.S.C. 102(a) as being obvious over Niira et al. (US 5556699, previously cited) in view of Kanari et al. (JP 2000178452) and Meyers (2002/0185188).

As to claims 1, 2 and 9, Niira discloses a method comprising processing a part using a silver-based antibiotic substance, comprising the steps of: forming a preform of the part to have a thickness relatively smaller than that of a finished product of the part through an extrusion process (column 5, lines 1-15); mixing the silver-based antibiotic substance (column 2, lines 54-59) in the form of powder and/or pellets (column 4, lines 18-24) with a resin; and forming an antibiotic layer on a surface of the preform of the part using the resin with the antibiotic substance mixed therewith (column 5, lines 1-15). It is noted that Niira's method is capable of processing a part of refrigerator. Niira is silent as to the specific weight percent of the silver based substance that is mixed with the resin.

Kanari discloses a method of processing a part that can comprise part of a refrigerator (section 30), said method comprising mixing 0.05 to 0.1 wt. % of a silver based antibiotic substance with a resin based on the total weight of the resin (thermoplastic resin) and forming an antibiotic layer comprising the substance mixed

Art Unit: 1791

with the resin (See Derwent abstract, machine translation section 21). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the method of Niira such that 0.05 to 0.1 wt. % of the silver based antibiotic substance is mixed with the resin based on the weight of the resin as doing such provides the resin with favorable and long lasting antibiotic properties (machine translation, section 5 and 21).

Niira further discloses a method wherein the silver-based substance comprises an oxide of an Ag ion and a zinc oxide (Reference Example). The references are silent however, as to the presence of zirconium phosphate and applicant's claimed weight percent composition. Myers discloses a method of mixing a silver based antibiotic substance with a resin, and forming a layer comprising the mixed substance on the surface of a part. The reference further discloses that it known in the art for said silver based substance to further contain zinc oxide and zirconium phosphate (paragraphs 66, 78, 92, 22, claim 1). The presence zirconium phosphate further enhances the antibiotic properties of the mixture. Although Myers is explicitly silent as to applicant's claimed composition, the examiner asserts one of ordinary skill in the art would have achieved applicant's claimed substance composition by performing routine experimentation. Absent any unexpected results presented by the applicant, the claimed composition does not patentably distinguish the instantly claimed method from the prior art. At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the method of Niira as modified by Kanari such that the silver based substance contains zirconium phosphate as taught by Myers. Additionally, at the time

Art Unit: 1791

the invention was made, it would have been obvious to one of ordinary skill in the art to use a silver based substance comprising applicant's claimed composition, as achieving such a composition is well within the purview of one of ordinary skill in the art.

As to claim 2, Niira discloses the antibiotic layer being formed by laminating a film made of the resin with antibiotic substance mixed therewith.

3. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reese in view of Kanari and Meyers.

Reese discloses a method for processing a part of a refrigerator (column 7, line 56-61) comprising the steps of: forming a preform 11 of the part to have a thickness relatively smaller than that of a finished product of the part through an extrusion process (figure 1) and forming a layer 16 comprising resin on a surface of the preform of the part (column 2, lines 16-61) The reference is silent as to a method wherein the layer is formed by mixing 0.05% to 0.1% by weight of a silver based antibiotic substance with a resin and forming an antibiotic layer on a surface of the preform of the part using the resin with the antibiotic substance mixed therewith. Kanari discloses a method as discussed above. The advantage of forming an antibiotic layer on the part is that said layer gives the part antibiotic properties. Said antibiotic properties are advantageous for refrigerator parts. Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the method of Reese by forming an antibiotic layer taught by Kanari above onto the preform of the part of Reese.

As to claim 3, Reese teaches a method wherein the antibiotic layer is formed on the surface of the part through multi-extrusion (figure 1).

### ***Response to Arguments***

4. Applicant's arguments filed 08/03/2009 have been fully considered but they are not persuasive. The applicant argues that in the claimed composition, the silver ions preform a whitening function and antibiotic functions and the zinc phosphate and oxide compounds serve as a matrix. The applicant then concludes that the use of the zinc oxide and phosphate compounds as a matrix results in a different compound because the zinc oxide and zinc phosphate disclosed by Myers functions as an antibiotic. These arguments are not commensurate with the scope of the applicant's claim. The claims do not recite that the zinc oxide and zinc phosphate serves as a matrix for the silver ions. Limitations disclosed in the specification are not read into the claims. Additionally, even if the claim recited that zinc oxide and zinc phosphate serve as a matrix, such a limitation does not excluded the zinc oxide and phosphate from also serving as an antibiotic. Furthermore, any alleged difference between the function preformed by the zinc oxide and phosphate of Myers and the zinc oxide and phosphate claimed by the applicant is not germane to merits of the current rejection. The claim does not recite a physical or structural limitation excluding the zinc oxide and phosphate from functioning as an antibiotic layer. Myers does not limit the composition of the silver-based substance and further discloses that the composition is a results effective variable. Thus, one of ordinary skill in the art would have readily achieved the applicant's claimed

Art Unit: 1791

composition by performing routine experimentation as only the expected results would have been obtained. See discussion of Myers above.

As to applicant's arguments directed at Niira with respect to claim 8, the claim does not recite any quantitative limitation that defines the claimed pellets over the pellets of Niira. Absent a limitation defining the size of the claimed pellets over the size of Niira's pellets, the claim does not define the instantly claimed method over the prior art.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1791

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER SCHATZ whose telephone number is 571-272-6038. The examiner can normally be reached on Monday through Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHRISTOPHER SCHATZ/  
Examiner, Art Unit 1791

/Richard Crispino/  
Supervisory Patent Examiner, Art Unit 1791